

In the United States Patent and Trademark Office

Applicant(s) Douglas B. Wilson  
Serial No. 10/727,306  
Filed 12/3/2003  
Title FATIGUE RELIEVING SUPPORT FOR STEERING WHEELS AND THE LIKE  
Examiner Vinh Luong  
Unit 3682

Commissioner for Patents  
P.O. Box 1450  
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APPEAL BRIEF UNDER 37 C.F.R. §41.37

SIR:

This is an Appeal Brief pursuant to the Notice of Appeal filed May 20, 2010 appealing the rejection of claims 14-19, 24/14, and 27 in the Office Action dated May 13, 2010 ("Second Appeal").

**I. REAL PARTY IN INTEREST**

The real party in interest is Douglas B. Wilson, 20 Nichols Road, Cohasset, MA 02025, Applicant/Appellant.

**II. RELATED APPEALS AND INTERFERENCES**

Appellant has filed a second appeal with regard to U.S. Patent Application Ser. No. 10/720,821 filed November 24, 2003 (U.S. Pub. No. 2004/0129108) ("the '821 Application"), on even date. The '821 Application is the parent of the present application. A number of issues to be

decided in the second appeal with regard to the '821 Application are the same or similar to the issues to be decided in this Second Appeal. Therefore, the decisions in the appeal related to the '821 Application would directly affect or have a bearing on the Board's decision in this Second Appeal.

### **III. STATUS OF THE CLAIMS**

Claims 14-19, 24/14, and 27 are pending in the present application and presented on appeal. Claims 1-13 were the original filed claims. In the Response dated October 27, 2005 ("October 27, 2005 Response"), Appellant cancelled claims 1-13 and added claims 14-28. In the Office Action dated December 30, 2005 ("December 30, 2005 Office Action"), the Examiner issued a restriction requirement. In the Amendment/Response to restriction requirement dated January 30, 2006 ("January 30, 2006 Amendment"), Appellant selected the species of Figures 1, 3, and 4 that were readable on claims 14-19, 24/14, and 27 to prosecute in the present application. Further, claims 20-23, 24/20, 25, 26, and 28 that were not selected were considered by the Examiner to be withdrawn from prosecution in the present application.

Claims 14-19, 24/14, and 27 have been twice rejected 35 U.S.C. §102 for anticipation based on JP\_H04-78769 to Shigeru ("Shigeru"). This rejection to claims 14-19, 24/14, and 27 is being appealed in this Second Appeal.

### **IV. STATUS OF AMENDMENTS**

Claims 1-13 were the original application claims as filed.<sup>1</sup> Claims 1-13 were cancelled and new claims 14-28 were added in the October 27, 2005 Response. Claims 14-28 were filed to overcome the Examiner's basis for rejecting claims 1-13 for anticipation under 35 U.S.C. §102(b) based separately on U.S. Patent No. 4,708,676 to Lin ("Lin"), U.S. Patent No. 4,875,386 to Dickinson ("Dickinson"), and U.S. Patent No. 3,937,629 to Hamasaka ("Hamasaka"). The Examiner responded to the October 27, 2005 Response by issuing a restriction requirement in the December 30, 2005 Office Action.

In the January 30, 2006 Amendment, Appellant selected the species of Figures 1, 3, and 4 that were readable on claims 14-19, 24/14, and 27 to prosecute in the present application. In the Amendment, Appellant also amended claims 14, 17, 18, and 20 to more distinctly claim the

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<sup>1</sup> In the Office Action dated April 26, 2005, the Examiner rejected claims 1-13 under the judicially-created doctrine of obviousness-type double patenting based on claims 1, 4, 6-10, 13, and 15-19 of the '821 Application.

invention. Further, claims 20-23, 24/20, 25, 26, and 28 that were not selected were considered by the Examiner to be withdrawn from prosecution in the present application as evidenced in the Office Action dated March 30, 2006 (“March 30, 2006 Office Action”).<sup>2</sup>

In an Amendment dated June 12, 2006 (“June 12, 2006 Amendment”), Appellant amended claims 15 and 17 to overcome the indefiniteness rejection under 35 U.S.C. §112, second paragraph, that was officially raised in the prosecution of U.S. Patent Application Ser. No. 10/720,821, the parent application to the present application, directed to similar claim language. This was done before it was officially raised in the present application. This amendment to the claims 15 and 17 was repeated in the Response filed June 26, 2006 (“June 26, 2006 Response”), because the Examiner had not previously entered these amendments to the claims. The Examiner did enter these amendments to claims 15 and 17 after the filing of the June 26, 2006 Response as evidenced in the Office Action dated July 14, 2006 (“July 14, 2006 Office Action”). There were no further amendments to claims 14-19, 24/14, and 27 before the Board of Patent Appeals and Interferences (“Board”) heard the First Appeal on August 13, 2009.<sup>3</sup>

Claims 1-13 were rejected in the Office Action dated April 26, 2005 (“April 26, 2005 Office Action”). These claims, as stated, were cancelled in the October 27, 2005 Response. Claims 14-19, 24/14, and 27 were finally rejected in the March 30, 2006 Office Action. The rejection in the March 30, 2006 Office Action was made final because the Examiner contended that “Appellant’s amendment necessitated the new ground(s) of rejection presented in the Office Action.” Appellant filed a first Notice of Appeal on August 25, 2006. Claims 14-19, 24/14, and 27, as amended in the June 26, 2006 Response, were presented to the Board in the First Appeal.

The Board heard the First Appeal on August 13, 2009 and rendered its decision on August 31, 2009 (“Decision”).<sup>4</sup> In the Decision, the Board reversed the Examiner’s rejection of claims 14-19, 24, and 27 for indefiniteness related to claim terms, the rejection of claims 14-17, 19/17, 24, and 27 for anticipation based on U.S. Patent No. 2,118,540 to Van Arsdel, and the rejection of claims 14, 18, and 19/18 for anticipation based on U.S. Patent No. 1,575,848 to

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<sup>2</sup> In the March 30, 2006 Office Action, the Examiner rejected claims 14-19, 24/14, and 27 under the judicially-created doctrine of obviousness-type double patenting based on claims 20-28 of the ‘821 Application.

<sup>3</sup> The rejection of claims 14-19, 24/14, and 27 under the judicially-created doctrine of obviousness-type double patenting based on claims 20-28 of the ‘821 Application was not raised as an issue on appeal before the Board in the First Appeal.

<sup>4</sup> Attached as Attachment A to the Evidence Appendix.

Laubach ("Laubach"), but affirmed the rejection of claims 14-17, 19/17, 24, and 27 for anticipation based on U.S. Patent No. 2,134,020 to Anson ("Anson").<sup>5</sup>

Appellant filed a Request for Continued Examination ("RCE") on September 24, 2009. On the same date, Appellant filed an Amendment ("September 24, 2009 Amendment")<sup>6</sup> in which independent claim 14 was amended to recite that the fatigue relieving/preventing apparatus provided "resting support." Appellant's amendment of independent claim 14 to recite that the fatigue relieving/preventing apparatus provided "resting support" was consistent with the Board's statements at the Oral Hearing of features that distinguished the claims on appeal over the Anson reference, which was the only remaining reference being relied on by the Examiner in rejecting the pending claims. (Oral Hearing Transcript dated August 13, 2009 at pages 14-16)<sup>7</sup> Appellant also filed a Terminal Disclaimer<sup>8</sup> with the September 24, 2009 Amendment to traverse the Examiner's rejection of claims 14-19, 24/14, and 27 under the judicially-created doctrine of obviousness-type double patenting based on claims 20-28 of the '821 Application.

In the Office Action dated November 19, 2009 ("November 19, 2009 Office Action")<sup>9</sup> that responded to Appellant's September 24, 2009 Amendment, the Examiner accepted the Terminal Disclaimer; rejected claims 14-19, 24, 25/14, and 27 under 35 U.S.C. §112, second paragraph, as being indefinite for the claims allegedly including inconsistent language;<sup>10</sup> rejected claims 14-17, 19/17, 24, and 27 for anticipation based on Anson; rejected claims 14, 18, and 19/18 for anticipation based on U.S. Pub. No. 2002/0162416 to Gemma ("Gemma"); and rejected claim 14 for anticipation based on U.S. Patent No. 5,207,713 to Park ("Park").

In response to the November 19, 2009 Office Action, Appellant filed an Amendment/Response dated February 24, 2010 ("February 24, 2010 Amendment").<sup>11</sup> In this Amendment, Appellant amended independent claim 14 to recite that the fatigue relieving/preventing apparatus was disposed on "an upper one-half (1/2)" of the periphery of the

<sup>5</sup> In the Decision, the Board affirmed the rejection of claims 14-19, 24/14, and 27 under the judicially-created doctrine of obviousness-type double patenting based on claims 20-28 of the '821 Application; however, Appellant had not raised this rejection as an issue on appeal in the First Appeal.

<sup>6</sup> Attached as Attachment B to the Evidence Appendix.

<sup>7</sup> Attached as Attachment C to the Evidence Appendix.

<sup>8</sup> Attached as Attachment D to the Evidence Appendix.

<sup>9</sup> Attached as Attachment E to the Evidence Appendix.

<sup>10</sup> Appellant has contended and continues to contend that claim 25 was withdrawn from consideration in the present application, which is specified by the Examiner in the March 30, 2006 Office Action. Accordingly, Appellant will address his remarks in this Second Appeal to pending claims for 14-19, 24/14, and 27.

<sup>11</sup> Attached as Attachment F to the Evidence Appendix.

steering wheel and that the second section of the support was “rigid, semi-rigid, or flexible, or deformable.”<sup>12</sup>

In the Office Action dated May 13, 2010 (“May 13, 2010 Office Action”)<sup>13</sup> that responded to Appellant’s February 24, 2010 Amendment, the Examiner withdrew the rejection under 35 U.S.C. §112, second paragraph, and the anticipation rejections based on Anson, Gemma, and Park. Also in the May 13, 2010 Office Action, the Examiner objected to the Specification for failing to provide a proper antecedent basis for “an upper one-half (1/2)” in claim 14; and finally rejected claims 14-19, 24/14, and 27 for anticipation based on Shigeru. The Examiner stated that the final rejection of the claims 14-19, 24/14, and 27 for anticipation based on the newly-cited Shigeru reference was necessitated by Appellant’s amendment of the claims.<sup>14</sup>

Appellant filed an Amendment After Final Action dated May 20, 2010 (“May 20, 2010 Amendment”)<sup>15</sup> to respond to the Examiner’s May 13, 2010 Office Action. In the May 20, 2010 Amendment, Appellant amended Specification to traverse the Examiner’s objection raised in the May 13, 2010 Office Action but did not make any further amendments to the claims. Appellant filed a second Notice of Appeal on May 20, 2010.

In response to the May 20, 2010 Amendment, the Examiner issued an Advisory Action Before the Filing of the Appeal Brief dated May 26, 2010 (“May 26, 2010 Advisory Action”).<sup>16</sup> In the May 26, 2010 Advisory Action, the Examiner entered Appellant’s May 20, 2010 Amendment for purposes of this Second Appeal and maintained his anticipation rejection of pending claims 14-19, 24/14, and 27 based on Shigeru.

Claims 14-19, 24/14, and 27 are hereby presented in this Second Appeal.

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<sup>12</sup> The latter amendment is consistent with what Appellant indicated to the Board was to be a correction to the Specification. (Oral Hearing Transcript dated August 13, 2009 at pages 27 and 28.)

<sup>13</sup> Attached as Attachment G to the Evidence Appendix.

<sup>14</sup> Shigeru was brought to the Examiner’s attention in Appellant’s IDS filed January 11, 2010. Shigeru was one of the references brought to Appellant’s attention in a foreign counterpart of the present application and filed within two month of this reference being brought to Appellant’s attention in such foreign counterpart application.

<sup>15</sup> Attached as Attachment H to the Evidence Appendix.

<sup>16</sup> Attached as Attachment I to the Evidence Appendix.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

Claims 14-19, 24/14, and 27 are presented in this Second Appeal. Of the pending claims, claim 14 is an independent claim and claims 15-19, 24/14, and 27 depend directly or indirectly from claim 14.

The present invention is directed to a novel system and method that is associated with a steering wheel for relieving or preventing fatigue when driving a vehicle for extended periods of time. The system will at least provide resting support for a portion of the driver's body, such as wrists, to relieve or prevent fatigue. (Figure 3; Specification: Page 2, lines 5-10 (paragraph [0007]); Page 3, lines 1-2 (paragraph [0013]); Page 5, lines 8-14 (paragraph [0023]); Page 6, lines 6-20 (paragraph [0032]))<sup>17</sup> The present invention also provides that the second section may be rigid, semi-rigid, deformable, or flexible. (Specification: Page 3, lines 19-26 (paragraph [0018]))<sup>18</sup>

Claim 14 recites a fatigue relieving/preventing apparatus that has two sections and provides resting support (Figure 3; Specification: Page 3, lines 1-2 (paragraph [0013]); Page 5, lines 8-14 (paragraph [0028])); Page 6, lines 6-20 (paragraph [0032])) and disposed on the upper one-half (1/2) of a steering wheel (Figures 1 and 2; May 20, 2010 Amendment<sup>19</sup>).<sup>20</sup> According to claim 14, the first section connects to the periphery of the steering wheel. (Figure 3; Specification: Page 3, lines 1-2 (paragraph [0013]); Page 3, lines 19-26 (paragraph [0018]); Page 5, lines 8-17 (paragraph [0027])); Page 6, lines 6-20 (paragraph [0032])) The second section connects to, and extends outward from, the first section at an angle to a plane across the face of the steering wheel, and the second section, as stated, may be rigid, semi-rigid, flexible, or deformable. The second section will support, for example, the driver's wrists, as long as the pressure on the second section is less than the pressure necessary to deform it. However, when greater than the deforming pressure is applied to the second section, such as in an emergency, this section will deform out of the interference with the driver's ability to grab the steering wheel. (Figures 1, 2, 3, 4; Specification: Page 3, line 18 to Page 4, line 6 (paragraphs [0017]-

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<sup>17</sup> Citations to numbered paragraphs are from the published version of the present application at U.S. Pub. No. 2004/0255713, which is attached as Attachment J to the Evidence Appendix.

<sup>18</sup> See the February 24, 2010 Amendment in which the Specification was corrected to change "non-deformable" to "deformable."

<sup>19</sup> In the May 20, 2010 Amendment, Appellant added disclosure to the Specification that clarified the invention as shown in Figures 1 and 2 was disposed on the upper one-half (1/2) of the steering wheel.

<sup>20</sup> The Claim Appendix contains a full version of amended claim 14.

[0019]); Page 4, lines 10-23 (paragraphs [0022]-[0024]); Page 5, line 15 to Page 6, line 5 (paragraphs [0029]-[0031])

Claims 15-19, 24/14, and 27 add further limitations to claim 14. Claim 15 adds that the steering wheel may control nautical vessels, aircraft, or ground transportation vehicles. (Specification: Page 2, lines 18-21 (paragraph [0009]); Page 8, original claim 2) Claim 16 adds that the second section can support the forearm, wrist, or hand. (Figure 3; Specification: Page 5, lines 11-17 (paragraphs [0028]-[0029]); Page 8, original claim 3) Claim 17 adds that the first section extends a predetermined length of the periphery of the steering wheel. (Figures 1 and 2; Specification: Page 3, lines 18-31 (paragraphs [0018]-[0019]); Page 4, line 29 to Page 5, line 7 (paragraphs [0026]-[0027]); Page 8, original claim 4) Claim 18 adds that the second section includes at least two sections that connect to a first section. (Figure 2; Specification: Page 4, lines 10-13 (paragraph [0022])) Claim 19 adds that the first section is deformable. (Specification: Page 3, lines 18-25 (paragraph [0018])) Claim 24/14 adds that the first section is formed integral with the steering wheel. (Figures 1 and 2; Specification: Page 5, lines 1-3 (paragraph [0027])) Claim 27 adds that the first section may be rigid, semi-rigid, or deformable. (Specification: Page 3, lines 18-25 (paragraph [0018]))

Appellant notes for the purpose of this Second Appeal that claim 27 recites that the first section may be flexible, rigid, semi-rigid, or deformable. However, the specification supports that the first section may be rigid, semi-rigid, and deformable. (Specification: Page 3, lines 18-25 (paragraph [0018])) Therefore, Appellant will agree to amend claim 27/14 in accordance with the Specification.

A significant aspect of the present invention is that the second section will deform out of interference with the operation of the steering wheel if it is grabbed in an emergency. This is shown graphically in Figure 4. The result is a novel apparatus that relieves or prevents fatigue when driving for extended periods of time but does not prevent the driver from grabbing the wheel in emergencies.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 14-19, 24/14, and 27 were first rejected in the November 19, 2009 Office Action. In that Office Action, the Examiner rejected claims 14-19, 24/14, and 27 on the following bases:

- A. Claims 14-19, 24, 25/14, and 27 under 35 U.S.C. §112, second paragraph, for allegedly being indefinite;
- B. Claims 14-17, 19/17, 24, 27 under 35 U.S.C. §102(b) for allegedly being anticipation based on Anson;
- C. Claims 14, 18, and 19/18 under 35 U.S.C. §102(e) for allegedly being anticipated by Gemma; and
- D. Claim 14 under 35 U.S.C. §102(b) for allegedly being anticipated by Park.

The Examiner issued a second rejection of claims 14-19, 24/14, and 27 in the May 13, 2010 Office Action. In that Office Action, the Examiner rejected the pending claims on the following basis:

- A. Claims 14-19, 24/14, and 27 under 35 U.S.C. §102(b) for allegedly being anticipated by Shigeru.<sup>21</sup>

Appellant requests that the Board review on appeal and reverse the Examiner's basis for the anticipation rejection set forth in the May 13, 2010 Office Action.

A copy of amended claims 14-19, 24/14, and 27 is attached as the Claims Appendix. Appellant also has attached an Evidence Appendix.

## **VII. ARGUMENT**

### **A. Anticipation Rejection**

#### **1. Anticipation: Legal Standard**

The Examiner has rejected claims 14-19, 24/14, and 27 under 35 U.S.C. §102(b) for anticipation based Shigeru. The standard for sustaining a rejection for anticipation is a single prior art reference must disclose each and every limitation of the claim. *See, e.g., Schering Corp. v. Geneva Pharma., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) ("[a] patent [claim] is invalid for anticipation if a single prior art reference discloses each and every limitation of the claimed invention"); *Brown v. 3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001) ("[t]o anticipate, every limitation of the claimed invention must be found in a single prior art reference, arranged as in a claim"); *Kloster Speedsteel AB v. Crucible, Inc.*, 794 F.2d 1565, 1571 (Fed. Cir. 1986) ("absent

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<sup>21</sup> In the May 13, 2010 Office Action, the Examiner withdrew the rejection under 35 U.S.C. §112, second paragraph, and the anticipation rejections based on Anson, Gemma, and Park. The Examiner stated that the final rejection of the claims 14-19, 24/14, and 27 for anticipation based on the newly-cited reference Shigeru was necessitated by Appellant's amendment of the claims.

from the reference of any claimed element negates anticipation"). Shigeru does not meet this standard.

## **2. Shigeru Does Not Anticipate Claims 14-19, 24/14, and 27**

Examiner rejected claims 14-19, 24/14, and 27 under 35 U.S.C. §102(b) for anticipation based on Shigeru. The Examiner provided a translation of Shigeru with a marked-up version of the drawings of this reference with the May 13, 2010 Office Action. The Examiner has relied on four pages of the translation and marked-up version of the drawings to support the anticipation rejection raised against claims 14-19, 24/14, and 27. Appellant submits that Shigeru (1) teaches away from the present invention and (2) does not anticipate the present invention as the Examiner contends. As such, the anticipation rejection based on Shigeru should be reversed.

A review of the Shigeru translation and marked-up drawings show this reference teaches a support 1 that extends outward from the outer peripheral edge of a steering wheel parallel to a plane across the face of steering wheel. For safety reasons, support 1 is shaped and positioned so that no portions of support 1 extend outward from a plane across the face of the steering wheel toward the driver; however, since support 1 is wider than the steering wheel, a portion of its width protrudes behind the plane across the back of the steering wheel.

The support 1 is constructed of rigid, molded plastic. The rigid understructure that is covered with a layer of cushion material. The surface of the cushion material is then covered with cloth or leather to reduce slippage. The driver's hands rest on the top of each support 1 at the outside perimeter of the steering wheel.

Each support 1 is fixedly attached to metal grooves cut in the outside periphery (perimeter) of the steering wheel. A latching mechanism extends through each support 1 so that when the support is positioned in the desired location along a metal groove, the latching mechanism is tightened to lock or fix support 1 in place. Once the support is fixed or locked in place, it does not move until the latching mechanism is released to unlock it. In a second embodiment, instead of the groove in the steering wheel being used, each support is locked or fixed in place with a lever or nut using a band or U-shaped metal fitting, respectively. In each case, the support is locked or fixed in place, and in order to move it, the support must be unfixed or unlocked, moved, and then refixed or relocked to the steering wheel at the new location.

According to Shigeru, the underlying molded plastic structure of support 1 is made from a lightweight plastic. This lightweight plastic is a rigid material. In order to protect a driver from contacting this rigid structure in an accident, the support is specifically placed such that the driver would come in contact with the steering wheel before the support. To the extent that the driver comes in contact with the support during normal use, the driver would contact the cloth or leather covering the cushion material, which reduces slippage. The following from pages 2-4 of the Shigeru translation supports Appellant's understanding of Shigeru:

## II. Scope of the Patent Claims

1. An invention of support 1 wherein support 1 can be moved along a fixing groove of steering wheel 2 and fixed to a free place by the action of lever 5 and metal fitting 6 to make the hands stable by fixing support 1 to the outer periphery of steering wheel 2 and reduce fatigue of driver's hands.
2. A support 1 [is] fixed to steering wheel 2 with band 11 or U-shaped metal fitting 12 wherein a fixing groove 3 of the steering wheel is not needed to fasten support 1 from the outside of steering wheel 2.

## III. Detailed Description of the Invention

*Groove 3 for metal fitting 6 is cut in a conventional steering wheel, metal fitting 6 of support 1 is fit into it in order to slide support 1 along the outer periphery of the steering wheel, and lever 5 is set into groove 7 of the support at the most preferable position of the driver's hands. When a driver wants to change the position, he/she can pull lever 5 horizontally to release the fixing, and then can move the lever to another place and fix it....*

Claim 2 is a method that is different with respect to the fixing method of support 1 wherein support 1 is fastened to the steering wheel 2 from the outside with a lever or a nut using a banned 11 or U-shaped metal fitting 12.

In the internal structure of support 1, molded part 8 is a light-weight plastic and relieves fatigue of a portion of the hands in contact with the cushion material thereon by covering the hands. A surface material 10 can be made with a cloth or with leather in order to reduce slippage of the hands as much as possible as shown in Fig. 3. *Support 1 does not come in contact with the body earlier than steering wheel 2 in a collision due to an accident happening in front of steering wheel 2; almost all of the parts are formed into curved surfaces and are covered all over with flexible cushion 9 when they are fixed to steering wheel 2.*

*Therefore, the safety of the human body is thought to be high.*

[Emphasis Added.]

Examiner provided an Appendix with the Office Action in which he marked up Figures 1, 2, and 4 of Shigeru to attempt to show the features of the present invention.<sup>22</sup> The Examiner alleges that where support 1 is fixed to fixing groove 3 of the steering wheel equates to the first section of the present invention and support 1 generally equates to the second section of the present invention.

Appellant contends that the marked-up figures along with this remainder of Shigeru show this reference (1) teaches away from the present invention, and (2) does not teach or suggest the present invention for the same reasons the Board found in the Decision that the present invention was not anticipated by U.S. Patent No. 2,118,540 to Van Arsdel ("Van Arsdel") or U.S. Patent No. 1,575,828 to Laubach ("Laubach").<sup>23</sup>

Initially, it is noted in Figures 1 and 4 of Shigeru show that support 1 extends outward from the outer edge of the periphery of the steering wheel parallel to a plane across the face of the steering wheel and because support 1 is thicker than the steering wheel, a portion of support 1 protrudes behind a plane across the back of the steering wheel. For safety reasons, no portion of support 1 extends in front of a plane across the face the steering wheel. This is supported at pages 3-4 of the Shigeru translation, where it states:

Support 1 does not come into contact with the body earlier than steering wheel 2 in a collision due to an accident happening in front of the steering wheel 2; almost all of the parts are formed into curved surfaces and are covered all over with flexible cushion 9 when they are fixed to steering wheel 2. Therefore, the safety of the human body is thought to be high.

As demonstrated in the quotations above from Shigeru, support 1 extends outward in the plane of the steering wheel with a portion that protrudes behind that plane. Further, as a safety factor, support 1 never extends in front of the plane across the face of the steering wheel toward the driver. Therefore, noting these features of Shigeru, this reference teaches away from the present invention as claimed in independent claim 14 in which the fatigue relieving/preventing apparatus extends outward from the steering wheel toward the driver.

Claims 15-19, 24/14, and 27 depend from claim 14. Since claims 15-19, 24/14, and 27 depend from claim 14, each of these dependent claims includes all the features of claim 14. Given this, Shigeru teaches away from claims 15-19, 24/14, and 27 for the same reasons that it

<sup>22</sup> Marked-up Figures 1, 2, and 4 of Shigeru are attached as Attachment K to the Evidence Appendix.

<sup>23</sup> The Decision is attached as Attachment A to the Evidence Appendix.

teaches away from the independent claim 14 from which each of these dependent claims depends.

A review of Shigeru also supports that this reference does not teach or suggest at least the following feature of independent claim 14 of the present application:

the second section for providing resting support for at least a portion of a vehicular operator's body when pressure from the portion of the vehicular operator's body on the second section is less than the pressure for deforming the second section out of interference with the vehicular operator's ability to operate the steering wheel, and deforming out of interference with the vehicular operator's ability to operate the steering wheel when pressure from the portion of the vehicular operator's body on the second section is equal to or greater than the pressure for deforming the second section out of interference with the vehicular operator's ability to operate the steering wheel. [Emphasis added.]

As noted previously, Appellant submits that support 1 of Shigeru, although being constructed of a lightweight plastic, is a rigid structure that is locked or fixed to the steering wheel and is not "deformable out interference with vehicular operator's ability to operate the steering wheel" as set forth in claim 14.

Appellant's contention that molded part 8 of lightweight plastic is a rigid structure is supported by the translation. Figure 3 shows molded part 8 covered with cushion material 9 and cloth or leather covering 10 to reduce hand slippage. Molded part 8 also includes groove 7 into which lever 5 is set. Lever 5 and metal fitting 6 are connected by a connecting rod (Figure 6). Metal fitting 6 is disposed in groove 3 cut in the peripheral edge of the steering wheel for locking support 1 to the steering wheel.

When the driver locks or fixes molded part 8 to the steering wheel, the connecting rod between lever 5 and metal fitting 6 is disposed through the hole in molded part 8 that extends from groove 7 to the inside surface of molded part 8. In order to lock or fix molded part 8 to the steering wheel, there must be considerable locking or fixing tension applied by lever 5 and metal fittings 6 to lock or fix support to the steering wheel. If molded part 8 was not made of a rigid material, support 1 (1) would collapse under this locking or fixing tension and (2) would not be locked or fixed in place and not movable from that place until the locking or fixing tension was removed. Further, the translation is explicit that in order to move support 1 from one place to another, it must be unlocked or unfixed, moved, and relocked or refixed to the steering wheel by

operation of lever 5, metal fitting 6, and groove 3. As such, support 1 is a rigid structure covered with cushion material and cloth or leather.

Further evidence of support 1 having a rigid structure is that for safety reasons support 1 is positioned such that in an accident the driver would not impact the support before impacting the steering wheel. If support 1 was not rigid as the Examiner contends, there would not be a need for such a safety risk precaution.

Appellant further submits, given the rigid structure of support 1 and its fixing or locking to the steering wheel by either (1) lever 5 with metal fitting 6 disposed in groove 3, or (2) a lever and band 11, or (3) a nut and U-shaped metal fitting 12, it is cumulative with Van Arsdel and Laubach, and, as such, independent claim 14 is patentable over Shigeru.

In reversing the Examiner's anticipation rejection under 35 U.S.C. §102 based on Van Arsdel and Laubach, the Board stated the following regarding these two references. First, with regard to Van Arsdel, the Board stated:

*Van Arsdel*

15. The Examiner finds from Van Arsdel's disclosure (Van Arsdel, p. 1, right column, l. 49 to p. 2, left column, l. 2 and ll. 28-32) that the grip-rest 2 is adjustable. Lines 28-32 explain that loosening or reversing the screw 14 sufficiently permits the grip-rest 2 to shift position. From this disclosure, the Examiner finds the grip-rest 2 could be placed at a position where it does not interfere with the operation of the steering wheel (*see Ans. 11-12*). As such, the Examiner finds that Van Arsdel's grip-rest 2 has the capability of deforming out of interference with the vehicular operator's body when the pressure from the vehicular operator's body is equal to or greater than the pressure needed to deform the second section out of interference. *Id.*
16. The Appellant argues that the portion of Van Arsdel's disclosure that the Examiner is using (Van Arsdel, p. 2, left column, ll. 28-32) to find that an Arsdel's grip-rest 2 is deformable does not in fact support the Examiner's finding. Instead, this portion of Van Arsdel supports a finding that to move the grip-rest 2, the screw 14 must be loosened, the rest repositioned, and screw 14 tightened. The Appellant argues that this operation is not deforming according to claim 20 [sic.] during normal use of the second section (grip-rest) (parenthetical nomenclature to Van Arsdel). The Appellant argues, instead, once positioned, the grip-rest is fixed. App. Br. 11.

(Decision, pp. 10-11)

*Anticipation with Van Arsdel*

We conclude that Appellant has met his burden in showing that Van Arsdel's second section is not capable of deforming out of interference with the vehicular operator's ability to operate the steering wheel when pressure from the portion of the vehicular operator's body on the second section is equal to or greater than the pressure for deforming the second section out of interference with the vehicular operator's ability to operate the steering wheel. *As the Appellant has stated, Van Arsdel's second section (grip rest) needs to be repositioned in order to be moved to a position out of interference with a driver's ability to steer the steering wheel (Fact 16) and parts of the second section (the flanges 4 and 5) give the driver something to push against to steer the car around corners and curves (Fact 17). A structure, as the Examiner has found, see Fact 15, that requires disassembly and reassembly, and permits the driver to push against cannot reasonably be considered a structure that is capable of deforming out of interference as has been claimed.* Accordingly, Appellant has met his burden in showing that Van Arsdel's structure is not capable of the performing the deformation out of interference function claimed. Thus, Appellant has demonstrated error in the Examiner's rejection of claims 14-17, 19/17, 24, and 27.

[Emphasis Added.]

(Decision, p. 18)

Now, with respect to Laubach, the Board stated:

21. The Examiner finds that portion 10 is capable of deforming out of interference because the driver can unscrew Laubach's knobs and move them to another position as desired by the driver. Ans. 14.
22. The Appellant argues that:

The description of the knobs and a review of the Figures...[make] plain that the knobs are not deformable and they are not disposed at an angle with respect to the plane across the face of the steering wheel. The knobs are rigidly connected to the steering wheel by screws 5. Any movement of them requires removing the screws, drilling the wheel at a new location, and reattaching the knobs at the new location. At this new location, the knobs will be in a plane parallel to the plane across the face of the steering wheel.

The knobs do not deform out of interference with the operation of the steering wheel as does the second section of claim 14. In fact, once the Laubach knobs are secured by screws 5 as shown and described, they are fixed and not movable during normal operations. If they are not unscrewed, the only movement would be to apply a destructive force to the knobs, thereby breaking them. Therefore, Laubach does not support a *prima facie* basis of anticipation because it is missing at least one element

of claim 20 relating to deformation of the knobs out of interference with the operation of the steering wheel in the normal operation of the knobs. App. Br. 15. [Emphasis in original.]

(Decision, pp. 3-14)

*Anticipation with Laubach*

We conclude that Appellant has met his burden in showing that Laubach's second section does not inherently possess the characteristic of being capable of deforming out of interference with the vehicular operator's ability to operate the steering wheel when pressure from the portion of the vehicular operator's body on the second section is equal to or greater than the pressure for deforming the second section out of interference with the vehicular operator's ability to operate the steering wheel. As Appellant argues, in the manner in which the Examiner has utilized Laubach in order to reach the deforming out of interference function, the knobs need to be disassembled and reassembled in order to be repositioned. See Facts 21 and 22. We agree with Appellant that the disassembly and reassembly of the knobs demonstrates that the knobs are fixed and the only manner of movement to the knobs, short of disassembly, would be destructive in nature to Laubach's device. As such, to find that the functional limitation of the second section deforming out of interference, as set forth in claim 14, is inherently satisfied on a manner of movement that either requires disassembly and reassembly or is destructive is unreasonable. Accordingly, the Appellant has met his burden in showing that Laubach does not possess the capability of deforming as set forth in the claims. Thus, Appellant has demonstrated error in the Examiner's rejection of claims 14, 18, and 19/18. [Emphasis Added.]

(Decision, p. 20)

In the citations to the Decision above, it is plain that a structure in which a rigid support is fixed to the steering wheel and can only be repositioned by unlocking or unfixing the rigid structure and then relocking or refixing it at a different location does not anticipate claim 14 of the present invention. Appellant submits that Shigeru is like Van Arsdel and Laubach in this regard and, therefore, does not anticipate claim 14.

For convenience, Appellant again provides the following portion of the Shigeru translation (Shigeru, pp. 2-4):

## II. Scope of the Patent Claims

1. An invention of support 1 wherein *support 1 can be moved along a fixing groove of steering wheel 2 and fixed to a free place by the action of lever 5 and metal fitting 6 to make the hands stable by fixing support 1 to the outer periphery of steering wheel 2 and reduce fatigue of driver's hands.*

2. A *support 1 fixed to steering wheel 2 with band 11 or U-shaped metal fitting 12* wherein a fixing groove 3 of the steering wheel is not needed to fasten support 1 from the outside of steering wheel 2.

## III. Detailed Description of the Invention

*Groove 3 for metal fitting 6 is cut in a conventional steering wheel, metal fitting 6 of support 1 is fit into it in order to slide support 1 along the outer periphery of the steering wheel, and lever 5 is set into groove 7 of the support at the most preferable position of the driver's hands. When a driver wants to change the position, he/she can pull lever 5 horizontally to release the fixing, and then can move the lever to another place and fix it. When the driver thinks that the change is unnecessary, he/she draws the lever 5 to the upper part of steering wheel 2 having a metal fitting inlet/outlet 4 to make it possible to freely remove the metal fitting.*

*Claim 2 is a method that is different with respect to the fixing method of support 1 wherein support 1 is fastened to the steering wheel 2 from the outside with a lever or a nut using a banned 11 or U-shaped metal fitting 12.*

In the internal structure of support 1, molded part 8 is a light-weight plastic and relieves fatigue of a portion of the hands in contact with the cushion material thereon by covering the hands. A surface material 10 can be made with a cloth or with leather in order to reduce slippage of the hands as much as possible as shown in Fig. 3. *Support 1 does not come in contact with the body earlier than steering wheel 2 in a collision due to an accident happening in front of steering wheel 2; almost all of the parts are formed into curved surfaces and are covered all over with flexible cushion 9 when they are fixed to steering wheel 2.*

*Therefore, the safety of the human body is thought to be high.*  
[Emphasis Added.]

The rigid support structure and method of moving it as disclosed in Shigeru are exactly what the Board has held is not “deforming out of interference with the vehicular operator’s ability to operate the steering wheel when pressure from the portion of the vehicular operator’s body on the second section is equal to or greater than the pressure for deforming the second section out of interference with the vehicular operator’s ability to operate the steering wheel” according to claim 14 of the present invention in its holding that neither Van Arsdel nor Laubach anticipates this claim. Accordingly, it is improper for the Examiner to disregard the Board’s explicit prior holding on this issue.

Noting the foregoing, Appellant has provided at least two grounds that clearly show Shigeru does not anticipate independent claim 14 of the present application. The first is Shigeru teaches away from the invention of claim 14, and the second is Shigeru does not anticipate claim 14 for the same reasons that the Board found Van Arsdel and Laubach do not anticipate this claim.

Claims 15-19, 24/14, and 27 depend from claim 14. Since claims 15-19, 24/14, and 27 depend from claim 14, each of these dependent claims includes all the features of claim 14. Given this, Shigeru fails to anticipate claims 15-19, 24/14, and 27 for the same reasons that it fails to anticipate the independent claim 14 from which each of these dependent claims depends.

Appellant's positions above make plain that he has traversed the Examiner's anticipation rejection raised against claims 14-19, 24/14, and 27 based on Shigeru and Appellant requests that this rejection be reversed by the Board.

### VIII. CLAIMS APPENDIX

1.-13. (Cancelled)

14. (Previously Amended) A fatigue relieving/preventing apparatus associated with a steering wheel for controlling a vehicle, comprising:

a first section that connects to an upper one-half (1/2) of a peripheral portion of the steering wheel; and

a rigid, semi-rigid or flexible, or deformable second section that connects to, and extends from the first section at the peripheral portion of the steering wheel, the second section extends from the first section outward at an angle to a plane across a front face of the steering wheel, the second section for providing resting support for at least a portion of a vehicular operator's body when pressure from the portion of the vehicular operator's body on the second section is less than the pressure for deforming the second section out of interference with the vehicular operator's ability to operate the steering wheel, and deforming out of interference with the vehicular operator's ability to operate the steering wheel when pressure from the portion of the vehicular operator's body on the second section is equal to or greater than the pressure for deforming the second section out of interference with the vehicular operator's ability to operate the steering wheel.

15. (Previously Presented) The apparatus as recited in claim 14, wherein the steering wheel includes the steering wheel for controlling at least a nautical vessel, aircraft, or ground transportation vehicle.

16. (Previously Presented) The apparatus as recited in claim 14, wherein the portion of the body supported by the second section includes at least a forearm, wrist, or hand.

17. (Previously Presented) The apparatus as recited in claim 14, wherein the first section extends a predetermined length of the peripheral portion of the steering wheel.

18. (Previously Presented) The apparatus as recited in claim 14, wherein the second section includes at least two second sections that each connect to the first section at separate locations.

19. (Previously Presented) The apparatus as recited in claim 17 or 18, wherein the first section is deformable.

20. (Withdrawn) A fatigue relieving/preventing apparatus associated with a steering wheel for controlling a vehicle, comprising:

at least two discrete first sections that each connect to a peripheral portion of the steering wheel, and

a discrete rigid, semi-rigid or flexible, or non-deformable second section that connects to, and extends from each first section at a peripheral portion of the steering wheel, each second section extends from the first section outward at an angle to a plane across a front face of the steering wheel, each second section for supporting at least a portion of a vehicular operator's body when pressure from the portion of the vehicular operator's body on the second section is less than the pressure for deforming the second section out of interference with the vehicular operator's ability to operate the steering wheel, and deforming out of interference with the vehicular operator's ability to operate the steering wheel when pressure from the portion of the vehicular operator's body on the second section is equal to or greater than the pressure for deforming the second section out of interference with the vehicular operator's ability to operate the steering wheel.

21. (Withdrawn) The apparatus as recited in claim 20, wherein the steering wheel includes a steering wheel for controlling at least a nautical vessel, aircraft or ground transportation vehicle.

22. (Withdrawn) The apparatus as recited in claim 20, wherein the portion of the body supported by the second section includes at least a forearm, wrist, or hand.

23. (Withdrawn) The apparatus as recited in claim 20, wherein the apparatus is adjustable for supporting different sizes or types of body portions.

24. (Previously Presented) The apparatus as recited in claim 14, wherein each first section is formed integral with the steering wheel.

25. (Withdrawn) The apparatus as recited in claim 14 or 20, wherein each first section is detachable from the steering wheel.

26. (Withdrawn) The apparatus as recited in claim 20, wherein each first section is deformable.

27. (Previously Presented) The apparatus as recited in claim 14, wherein the first section is flexible, rigid, or semi-rigid, or non-deformable.

28. (Withdrawn) The apparatus as recited in claim 20, wherein the first section is flexible, rigid, or semi-rigid, or non-deformable.

**IX. EVIDENCE APPENDIX**

Attachment A is a copy of the Decision of the Board dated August 31, 2009.

Attachment B is a copy of the September 24, 2009 Amendment.

Attachment C is a copy of the Oral Hearing Transcript dated August 13, 2009.

Attachment D is a copy of the Terminal Disclaimer filed in the '306 Application.

Attachment E is a copy of the November 19, 2009 Office Action.

Attachment F is a copy of the February 24, 2010 Amendment.

Attachment G is a copy of the May 13, 2010 Office Action.

Attachment H is a copy of the May 20, 2010 Amendment.

Attachment I is a copy of the May 26, 2010 Advisory Action.

Attachment J is a copy of U.S. Pub. No. 2004/0255713.

Attachment K is a copy of the Marked-up Figures 1, 2, and 4 of Shigeru.

**X. RELATED PROCEEDINGS APPENDIX**

None.

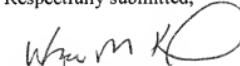
## XI. CONCLUSION

In the foregoing, Appellant has clearly demonstrated that the Examiner's basis for the rejection of claims 14-19, 24/14, and 27 under 35 U.S.C. §102 for allegedly being anticipated by Shigeru is traversed. Accordingly, Appellant requests that this rejection be reversed by the Board.

The appropriate fee for the Appeal Brief is being paid herewith via credit card. Appellant believes no other fee is due with this Appeal Brief. However, if a fee is due or to credit any overpayment, please charge or credit our Deposit Account No. 08-0219, under Order No. 114089.120US2 from which the undersigned is authorized to draw.

Respectfully submitted,

Dated: June 18, 2010

  
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